



# Environmental Bulletin

Volume 10, Number 3  
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*from the Savannah River Site*

## SRS managers sign new site environmental policy



In February, SRS managers gathered to sign a new site environmental policy. Pictured above from left, (first row) Savannah River Natural Resource Management and Research Institute Manager David W. Wilson; DOE Savannah River Operations Office Manager Greg Rudy; and WSRC President Ambrose L. Schwallie. Back row, Savannah River Ecology Laboratory Director Dr. Michael H. Smith; SRS Fleet Manager JoAnn D. Abell, and Wackenhut Services, Inc. Senior Vice President and General Manager Dr. Lawrence Brede, Jr. The revised ISO 14001 site Environmental Management System policy now includes all site agencies in its scope. ISO 14001 certification is the international standard for environmental management system excellence. (Photo # 99-1024-20E)

### CAB recommendations from Hilton Head meeting

The SRS Citizens Advisory Board (CAB) adopted the following recommendations during its January 25-26 meeting held in Hilton Head, S.C.

- Recommendation 74 addresses the Draft SRS Spent Fuel Environmental Impact Statement (EIS) and supports the preferred alternative of "melt and dilute" for spent fuel management.
- Recommendation 75 addresses interim corrective measures of groundwater contamination at the southwest plume of the Old Radioactive Waste Burial Ground. The recommendation supports limited corrective measures and is accompanied by a minority report submitted by seven of 18 Board members present who support full interim measures.
- Recommendation 76 commends DOE, Environmental Protection Agency and SCDHEC for the Plug-In-Record Of Decision (ROD) Approach to environmental cleanup and recommends it be implemented at the C,K,L and P reactor seepage basins. The CAB also requested a list of additional candidates for this approach.
- Recommendation 77 provides comments on a Hazardous Waste Permit for the Waste Isolation Pilot Plant that would ensure SRS meets waste acceptance criteria for WIPP but not impose more regulations on SRS by the New Mexico Environmental Department.
- Recommendation 78 recommends that DOE cancel plans for a High Level Waste Tank Closure EIS unless significant worker safety, public health or environmental protection issues are identified. If DOE continues with the EIS, then the CAB requests it devote the minimum amount of funds and time to the complete the EIS and issue a ROD by December 1999.

## Modification requested

The U.S. Department of Energy (DOE)-Savannah River Operations Office has requested from the South Carolina Department of Health and Environmental Control (SCDHEC) a modification to Savannah River Site's 1988 Resource Conservation and Recovery Act (RCRA) Part B Permit Renewal Application, Volume X, which details the operations of the Site's Consolidated Incineration Facility (CIF).

This revision (Rev. 17) incorporates changes required as a condition of Rev. 16 approval. The most significant change was an assessment supporting the expanded waste feed tanks' allowed pH range.

More information, including the actual permit application, is available for review and copying at the DOE Public Reading Room in the University of South Carolina-Aiken library or by contacting the personnel listed on page 2.

# Alternatives to the In-Tank Precipitation Process

The Department of Energy (DOE) will prepare a supplemental environmental impact statement (SEIS) on the proposed replacement of the in-tank precipitation process (ITP) at the Savannah River Site (SRS). The ITP process was intended to separate soluble high-activity radionuclides (for example, cesium, strontium, uranium, and plutonium) from liquid high-level radioactive waste before vitrifying the high-level waste in the Defense Waste Processing Facility (DWPF). Low level waste from the process was disposed in saltstone in engineered vaults adjacent to DWPF.

Because replacement of the ITP process constitutes a substantial change to the operation of the DWPF as evaluated in a 1994 SEIS (DOE/EIS-0082-S), DOE will prepare a second SEIS to address the potential environmental impacts of the alternatives to the ITP process.

In September 1995 the ITP began radioactive operation in Tank 48H. In December 1995, DOE found that the ITP process was generating flammable benzene at higher rates than expected. The benzene formed is a byproduct of the catalytic decomposition of sodium tetraphenylborate.

In August 1996, the Defense Nuclear Facilities Safety Board, an independent executive branch organization chartered to provide advice regarding public health and safety issues at DOE defense nuclear facilities, recommended that testing or operating the ITP process not proceed without an improved understanding of benzene formation and release that may be encountered during ITP operation.

Subsequent studies demonstrated that the ITP as currently configured cannot achieve production goals and meet safety requirements for processing the high-level waste salt fraction. In response, in 1998 DOE identified potential alternative pretreatment technologies and evaluated them to determine their viability. This evaluation has resulted in the preparation of pre-conceptual designs for four technologies: (1) small tank tetraphenylborate precipitation, (2) crystalline silicotitanate ion exchange, (3) direct disposal as grout, and (4) caustic side solvent extraction. DOE later determined that the solvent extraction alternative is not sufficiently developed to warrant further analysis. A no action alternative will also be included in the SEIS.

The public scoping period will last through April 8, 1999. DOE invites federal agencies, native American tribes, state and local governments, and the public to comment on the scope of this SEIS. DOE will consider fully all comments received by the close of the scoping period, and will consider comments received after that date to the extent practicable.

Two public scoping workshops will be held in March to provide information about SRS high-level waste processing and the proposal to replace ITP, including the alternatives being

considered. The workshops will provide opportunities to comment orally or in writing on the SEIS scope.

Scoping meetings are set for:

**March 11, 1999**, 2 – 4 p.m. and 6 – 8 p.m., Holiday Inn Coliseum, 630 Assembly Street, Columbia, South Carolina; and

**March 18, 1999**, 2 – 4 p.m. and 6 – 8 p.m., North Augusta Community Center, 101 Brookside Drive, North Augusta, South Carolina.

## for more information

Comments on the scope of the SEIS may be mailed to Andrew Grainger, NEPA Compliance Officer, Savannah River Operations Officer, U.S. Department of Energy, Building 742A, Room 185, Aiken, South Carolina, 29802. The toll-free 24-hour voice mail (local and nationwide) is 800-881-7292. The electronic address is [nepa@srs.gov](mailto:nepa@srs.gov).

Copies of the draft RCRA permit modifications are available for review at SCDHEC during regular business hours, 8:30 a.m. to 5 p.m., Monday through Friday, except legal holidays, at the following locations:

SCDHEC  
Bureau of Land and Waste Management  
8901 Farrow Road  
Columbia, South Carolina 29203  
Phone: (803)896-4000

or  
SCDHEC  
Lower Savannah District  
Environmental Quality Control Office  
218 Beaufort St., N.E.  
Aiken, SC 29802  
Phone: (803) 641-7670

For additional information or to request a public meeting contact:

**Jim Moore**  
**Westinghouse Savannah River Company**  
**Savannah River Site**

Building 742-A  
Aiken, SC 29808  
1-800-249-8155  
[jim02.moore@srs.gov](mailto:jim02.moore@srs.gov)

or  
**SCDHEC**  
**Attn: John Litton, P.E., Director**  
Division of Hazardous and Infectious Waste Mgt.  
Bureau of Land and Waste Management  
2600 Bull Street  
Columbia, SC 29201  
Phone: (803) 896-4000

## Current NEPA actions affecting SRS

• **Accelerator for Production of Tritium (APT) (DOE/EIS-0270)**, The Secretary has selected the Commercial Light Water Reactor (CLWR) as the primary tritium production technology with APT as backup. Publication of the final EIS and ROD is expected in March.

• **Tritium Extraction Facility (TEF) (DOE/EIS-0271)**, The Secretary has selected the CLWR as the primary tritium production technology with APT as backup. Publication of the final EIS and ROD is expected in March.

• **Rocky Flats Plutonium Residues and Scrub Alloy (DOE/EIS-0277)**, The final EIS was issued on August 28, 1998 (63 FR 46006). The first ROD was issued December 1, 1998 (63 FR 66316). The second ROD was issued February 18, 1999 (64 FR 8068).

• **SRS Spent Nuclear Fuel (DOE/EIS-0279)**, The draft EIS was issued December 17, 1998. Public meetings were held January 28, 1999 in Columbia, SC and February 2, 1999 in North Augusta, SC.

• **DOE Waste Management (DOE/EIS-0200)**, Multiple RODs will be issued. Planned RODs are HLW storage and Low Level Waste (LLW)/Low Level Mixed Waste (LLMW), early 1999. A supplemental analysis for new waste amounts is being developed by DOE.

• **Closure of High Level Waste Tanks at SRS (DOE/EIS-0303)**,

The NOI was issued December 29, 1998 (63FR71628). The public scoping meetings were held January 14, 1999 in North Augusta, SC and January 19, 1999 in Columbia, SC.

• **Surplus Plutonium Disposition (DOE/EIS-0282)**, Public comments are being addressed and the final EIS is being prepared. The expected issue date for the final EIS and ROD is May, 1999.

• **Wetland Mitigation Bank Program (DOE/EA-1205)**, The public comment period was extended to accommodate the receipt of SC and local stakeholder comments. A decision (FONSI or EIS) is expected in early 1999.

• **Par Pond Dam Repair Project (DOE/EA-1205)**, The draft EA is currently being prepared. A decision (FONSI or EIS) is expected in mid 1999.

• **Alternatives to the ITP Process SEIS (DOE/EIS-0000)**, The NOI was issued February 22, 1999. The public scoping meetings will be held in Columbia, SC on March 11, 1999 and in North Augusta, SC on March 18, 1999. The public scoping period will end April 8, 1999.

**EA -- Environmental Assessment**

**EIS -- Environmental Impact Statement**

**FONSI -- Finding of No Significant Impact**

**NOI -- Notice of Intent**

**ROD -- Record of Decision**

### INFORMATION REPOSITORIES

- DOE Public Reading Room, Gregg-Graniteville Library, USC-Aiken, Aiken, SC
- Thomas Cooper Library, Government Documents Department, USC-Columbia, Columbia, SC
- Reese Library, Augusta State University, Augusta, GA
- Asa H. Gordon Library, Savannah State University, Savannah, GA

### INTERNET ACCESS

**SRS Home Page,**  
<http://www.srs.gov>

## Public meeting on treatment of sodium-bonded fuel

A public meeting to discuss the scope of an Environmental Impact Statement (EIS) for the proposed electrometallurgical treatment of DOE-owned sodium-bonded spent nuclear fuel in the Fuel Conditioning Facility at Argonne National Laboratory-West (ANL-W) is set for Monday, March 15, 6–9 p.m. at the North Augusta Community Center. The March 15 meeting is one of four public meetings DOE is hosting nationwide to discuss the EIS scope.

ANL-W, a center of nuclear technology development and testing, is located on the Idaho National Engineering and Environmental Laboratory (INEEL) site in southeastern Idaho. DOE proposes to treat its inventory of sodium-bonded spent nuclear fuel to remove and stabilize the reactive metallic sodium constituent and to produce metal and ceramic high level waste forms to facilitate interim storage and ultimate disposal of this material. The EIS will evaluate reasonable action alternatives to electrometallurgical treatment in the Fuel Conditioning Facility at ANL-W and a no-action alternative. The PUREX process at the Savannah River Site is one of the alternatives to electrometallurgical treatment of the sodium bonded fuel DOE intends to evaluate in the EIS.

The scoping period for the EIS will last through April 8, 1999. Please send written comments on the scope of the EIS or requests to speak at the public scoping meetings to Susan Lesica, Document Manager, Office of Nuclear Facilities Management, Office of Nuclear Energy, Science, and Technology, U.S. Department of Energy, NE-40, 19901 Germantown Road, Germantown, Md. 20874-1290

Interested parties may also submit comments and requests by facsimile to (877) 621-8288, or they may call (877) 450-6904 to leave a detailed message with their comments and requests. These are both toll-free telephone numbers. Comments and requests may also be submitted by electronic mail to [emtEIS@hq.doe.gov](mailto:emtEIS@hq.doe.gov).

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## *The SRS Environmental Bulletin*

For more information on this or other cleanup  
and compliance activities at SRS, please contact:

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